Integrating Army Aviation into the Brigade Targeting Process

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Scenario I. The brigade executive officer (XO) directs the S2 begin the targeting meeting by updating the current enemy situation. The S3 states the commander's intent, updates the current friendly situation and briefs the operations planned for the next 48 hours.

The fire support officer (FSO) follows with a review of the high-payoff target list (HPTL) and attack guidance matrix (AGM). He then leads a discussion geared toward determining which of the enemy's high-value targets now are most critical to attack, in order of priority, and what assets will be tasked to detect and attack targets and then assess their damage. The FSO uses a target synchronization matrix and enters the appropriate information into the decide, detect, deliver and assess (D^3A) portions of the matrix.

During the targeting meeting, an enemy battalion supply point (BSP) is identified as an HPT. Attack helicopters, OH-58D(I) Kiowa Warriors, are designated as the weapon system tasked under the deliver column of the target synchronization matrix.

The aviation liaison officer (LNO), who observed the targeting meeting, calls his S3 over the radio and informs him that the aviation task force is to destroy the BSP at grid WQ055343. The aviation battalion S3 briefs an attack team to go to that location, identify any movement of supplies that might pinpoint the location of the BSP and, if possible, destroy the BSP.

The team leader gets the current enemy situation from the aviation battalion S2. He then briefs the aircrews, and in 30 minutes, they are en route. Upon arrival, the team begins an orbit at treetop level looking through the trees at a slant distance of 200 meters. After 20 minutes without contact, the team leader decides to return to his holding area to await another mission from the aviation battalion tactical operations center (TOC).

During egress, his wingman is hit by an enemy rocket-propelled grenade (RPG), destroying the aircraft and killing both crew members. The team leader suppresses the area with his .50-caliber weapon system and calls for help on the battalion command net.

This scenario—where valuable aviation resources are squandered—occurs often during rotations at the Joint Readiness Training Center (JRTC), Fort Polk, Louisiana. It illustrates problems that Field Artillery and Aviation units frequently experience at the JRTC. Targeting, in reality, is the brigade staff's method of synchronizing current operations and planning contingencies (branches), and all players must be integrated into that process. This article examines how to integrate Army aviation into the brigade's D^3A functions.

Decide Function. To ensure the targeting process is successful, the following questions must be answered during the decide function: What targets should be acquired and attacked? When and where are the targets likely to be found and who can locate them? How should the targets be attacked? Is target damage assessment (TDA) required?

Continuous intelligence preparation of the battlefield (IPB) is the first step the brigade staff performs in the decide function. By updating the facts and assumptions about the battlefield environment and the threat, the IPB enables the staff to begin developing courses of action (COAs). The IPB also determines the allocation and synchronization of intelligence collection assets to support the commander's chosen COA. Finally the IPB, specifically the enemy's most probable COA, is the key to war-gaming combat functions and completing several other staff processes.

The initial IPB effort produces a doctrinal template. This template converts the enemy order of battle into graphics and aids in the initial identification of potential high-value targets (HVTs). HVTs are those assets the enemy commander requires for the successful completion of his mission. The situation template further refines HVTs for a specific area of operation and enemy COA. Concurrently, these HVTs are analyzed for the threat's most probable COA and any possible branches.

War-gaming identifies critical threat functions associated with each COA. Not only must the staff war-game the decide function, but it also must continue to war-game throughout the detect, deliver and assess functions. At a minimum, the staff must war-game the critical actions or events to synchronize assets across the battlefield operating systems (BOS).

From this war game, the decision support template (DST) is developed. It iden-

tifies critical threat activities, named areas of interest (NAIs), targeted areas of interest (TAIs), decision points (DPs) or phase lines (PLs) and HPTs. HPTs are those HVTs that must be acquired and attacked for the friendly brigade's mission to succeed. At this point, the staff can answer the first question—What targets should be acquired and attacked?—and begin developing taskings for subordinate units.

Using the event template and DST, the S2 develops the reconnaissance and surveillance (R&S) plan. This plan identifies where and when targets should be found and who's tasked to find them. The aviation LNO plays a key role by ensuring the staff understands the reconnaissance capabilities and limitations of the aircraft available (discussed in the "detect function" section) before R&S tasks are assigned. This precludes false expectations and gaps in the R&S plan. After the commander approves the R&S plan, the plan answers the second question—When and where are the targets likely to be found and who can locate them?

The next step is to develop the AGM. The staff recommends how a target should be engaged. The attack guidance specifies the HPT to be attacked, when, how and any restrictions. The "how" column refers to the target effects desired. The effects can be specified by a subjective term, for example, suppress (S), neutralize (N) or destroy (D).

Again, it's important that the aviation LNO participate in developing the AGM. While "destroy" means 30 percent casualties or materiel damage to an artilleryman (*FM 6-20-1 Tactics, Techniques and Procedures for the Field Artillery Cannon Battalion*), an attack helicopter pilot understands "destroy" to mean that he must kill greater than 70 percent of the enemy force (*FM 1-112 Tactics, Techniques and Procedures for the Attack Helicopter Battalion*). Attack helicopter doctrine doesn't define "suppress" and "neutralize"; it uses the terms "attrit" and "disrupt" instead. Understanding the differences in terminology is critical when assigning tasks to the aviation task force.

The aviation LNO also must address any restrictions, such as the use of dud-producing munitions. If TDA is required, attack helicopters have certain capabilities and limitations, and the aviation LNO must ensure the staff accounts for them during the assess function. Once completed, the AGM answers the last two questions—How should the target be attacked? and Is TDA required?

Detect Function. The detect function focuses on the HPTs designated during the decide function. The key is the R&S plan, which integrates all collection assets. Collectors available to the brigade include intelligence and electronic warfare (EW) systems, Field Artillery target acquisition assets and assets provided by division and maneuver units, including aviation. Before the S2 can assign aviation as a collector, he must understand how these assets can best be directed to collect, process and disseminate the essential targeting information.

For example, the brigade S2 must understand that if continuous observation is required, aviation is probably not the right choice. First, periods of adverse weather ground the aircraft leaving the NAI uncovered. Additionally, remaining in one location for an extended time places the aircraft at risk to SA-14, rocket-propelled grenades (RPGs) and small-arms fire.

An effective technique is to combine aviation with other assets to provide continuous coverage. For example, attaching an infantry scout platoon to the aviation task force enables a single battalion headquarters to cover NAIs with a human intelligence (HUMINT) asset to find the specific target that aircraft alone may not be able to find. The aviation task force can insert, protect and extract this ground force.

If less than continuous observation on a NAI is acceptable, then the S2 must provide the critical times to observe. Too often units allow the aviators to choose the times the NAIs are observed and the critical times are overlooked. For example, if the targeted BSP is resupplied by rotary wing aircraft at end (of) evening nautical twilight (EENT), then EENT is the critical time for observation. The aviation task force must know these details.

Finally, the S2 must not over task the aviation unit by assigning too many NAIs; a good rule of thumb is to assign no more than six NAIs per task force. The aviation LNO can advise the S2 on the times the aircraft can observe the NAIs, based on aircraft availability and fighter management cycles.

In collecting essential targeting information, the OH-58D(I) and the AH-64 Apache are equipped with thermal systems. These systems appear to be infallible. However, it requires little sophistication for the threat to defeat the OH-58D(I) thermal image system (TIS) and the AH-64 forward-looking infrared (FLIR). For example, the enemy can simply shut down vehicles and let them cool to the ambient temperature, making the vehicle invisible to thermal systems. Inexpensive infrared (IR) camouflage nets and IR paint also reduce the visibility of enemy systems. The S2 also must be aware of how weather, moon illumination and IR crossover periods impact aircraft employment techniques.

Both the OH-58D(I) and AH-64 can video tape essential targeting information. These tapes allow the aviation task force S2 to view the information firsthand. Coupled with a good mission debriefing checklist, these tapes are an invaluable tool when processing and disseminating intelligence. If the brigade wants to view the tapes, the S2 should ensure a knowledgeable individual is available to interpret them.

It's essential that target acquisition (TA) assets be used most effectively and efficiently to detect HPTs in a timely, accurate manner. Therefore, clear and concise taskings must be given to the TA systems. The end state of the detect function is a revised R&S plan. If the brigade S2 works with the aviation LNO, then aviation assets will be integrated into the R&S plan.

Deliver Function. After the HPTs have been located and identified, this function executes the attack guidance and supports the commander's battle plan. Attacking these HPTs requires several tactical and technical decisions.

Aircraft	Weapon System	Range
OH-58D(I)	.50 Cal Rounds	2,000 Meters
OH-58D(I)	Stinger Missiles	Excess of 5,000 Meters
AH-64	30-mm Rounds	4,000 Meters
OH-58D(I)/AH-64	Hellfire Missiles	8,000 Meters
OH-58D(I)/AH-64	70-mm Rockets	8,800 Meters

Maximum Effective Ranges of Army Aviation Weapon Systems

Tactically, the brigade staff must determine the time of attack, the desired effects on target and the type of attack system to be used. Considering those tactical decisions, the staff must technically decide the precise delivery means, the number and type of munitions, the unit capable of conducting the attack and the response time.

The staff must understand the attack capabilities of the various aircraft before tasking them as delivery assets. For example, the OH-58D(I) has two wing store stations. On each station, the crew may install one of the following four weapons: .50-caliber machinegun with 500 rounds (left pylon only), seven 70-mm rockets, two Hellfire missiles or two Stinger missiles. In comparison, the AH-64 has four wing store stations. On each of these stations, the crew may install one of the following three systems: 19 70-mm rockets; four Hellfire missiles or an external fuel tank; and, located under the front of the AH-64, a 30-mm machinegun with 1,200 rounds. The three basic types of 70-mm rockets are high-explosive, flechettes and multipurpose submunitions.

The brigade staff should note the limited ammunition capacity of the OH-58D(I) as compared to the AH-64 and plan accordingly. It should task the aircraft, state the desired target effects and allow the aviation task force to determine the weapons load. The table highlights the maximum effective ranges of the two helicopters.

Although both aircraft can range targets in excess of 8,000 meters, most engagements at the JRTC are within 500 meters. At these ranges, the aircraft lose their stand-off capability and are more vulnerable to many threat weapons. The brigade staff needs to factor in risk to the aviation asset based on the range of the engagement.

All aviation task force commanders want indirect fires to suppress the enemy forces they're attacking. This is particularly true of OH-58D(I) units because of the limited amount of ammunition the helicopter carries. However in most situations, aviation units are last in priority for indirect fire support. The staff needs to consider aviation assets for support by indirect fire.

On those targets chosen for engagement by indirect fire, the brigade staff should consider aviation assets as possible observers. JRTC rotations have demonstrated that unobserved fires have had little or no effects on the enemy. The acquisition systems on board both the OH-58D(I) and AH-64, coupled with each aircraft's lasing capability, allow for first-round fire-for-effect missions. The brigade FSO should consider these factors while war-gaming.

Assess Function. Assessing the effects of an attack is always desirable. But the staff must weigh the value of the information gained against the risk involved for the system used to assess the target damage. Because the targeting process focuses on HPTs, future decisions will depend upon TDA. If the risk analysis requires the TDA to be conducted, the same level of detailed planning during the detect function must be accomplished again at this point.

Considerations for using aviation as TDA assets are similar to those already discussed in the detect function. Again, adverse weather may make it impossible for aviation to collect TDA in a timely manner. The same thermal image systems limitations apply, and environmental conditions may not allow for accurate TDA.

When aviation assets are tasked to conduct TDA, the video recorders are good tools. They allow more than one set of eyes to scrutinize the assessment. But using the video recorder isn't a substitution for good pilot debriefings. Pilots often have valuable information that is not captured on the tape.

Scenario II. The brigade staff conducted a targeting meeting integrating all players. The brigade task and purpose is to locate and destroy the BSP. Fragmentary Order (FRAGO) 96-08-19 task organized an infantry platoon to the aviation task force and tasked the aviation task force to conduct area reconnaissance and focus on NAIs 4, 5, 9 and 32. The brigade S2 and the aviation LNO worked closely to determine the critical times for the aircraft to be on station.

The aviation task force concept was to insert six ground observation posts to provide continuous observation on the four NAIs and tasked the OH-58D(I)s to observe NAIs 9 and 32 during the critical times. This combined arms team led to the identification of a helicopter landing zone (LZ) and three infiltration routes leading to the BSP.

The brigade S2 viewed the video tape of the LZ and one infiltration route with the pilot who flew the mission debriefing. At the next targeting meeting, the brigade staff revised the plan to task an infantry battalion to attack the target, integrating artillery and attack helicopters. FRAGO 96-08-21 clearly tasked each of the maneuver units. The aviation task force was tasked to occupy an attack-by-fire position, adjust the artillery preparatory fires and overwatch the infantry's assault.

The brigade's revised R&S plan was properly disseminated, and each FSO received the target synchronization matrix. The infantry and aviation task forces received the necessary information early enough to plan, coordinate and rehearse the mission.

At H-hour, the Kiowa Warriors were on station in their attack-by-fire position observing the prep. Once in their assault positions, priority-of-fires shifted to the infantry task force. Using fires and communicating directly with the overwatching aircraft, the infantry attacked the objective. The result was a coordinated attack, destroying the BSP. Mission accomplished.

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